## AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended)    A routing apparatus for guaranteeing Quality of Service (QoS) in the Internet, comprising:

a QoS edge routing means at a transmitter for receiving an allocating resource request ~~for allocating resource~~ from a transmitting node, setting a first path at a QoS data rate by signaling for setting ~~a~~ the first path and transferring data at the QoS data rate through the first path by receiving a ~~request for~~ transferring data request from the transmitting node;

at least one QoS core routing means for receiving an allocating resource request ~~for allocating resource~~ from the QoS edge routing means at ~~a~~the transmitter, setting a second path at ~~a~~the QoS data rate by signaling for setting ~~a~~the second path and transferring data at the QoS data rate through the second path by receiving a ~~request for~~ transferring data request from the QoS edge routing means at ~~a~~ the transmitter; and

a QoS edge routing means at a receiver for receiving an allocating resource request ~~for allocating resource~~ from the QoS core routing means, setting a ~~first~~third path at ~~a~~the QoS data rate by signaling for setting ~~a~~the third path and transferring data at the QoS data rate through the ~~first~~third path by receiving a ~~request for~~ transferring data request from the at least one QoS core routing means, wherein the transmitting node separates multimedia application data and general application data, and the QoS data rate is based on required data rate for guaranteeing QoS based on application type.

Claim 2 (Currently Amended)    The routing apparatus as recited in the claim 1, wherein the QoS edge routing means at the transmitter monitors whether a quantity of data transferred from the transmitting node is smaller than the allocated resource.

Claim 3 (Currently Amended)    A routing method for guaranteeing Quality of Service (QoS) in the Internet, comprising the steps of:

(a) receiving an allocating resource request ~~for allocating resource~~ from a transmitting node and setting a path to a receiving node at a QoS data rate by signaling of each router, a QoS

edge router at a transmitter, a QoS core router and a QoS edge router at a receiver, for setting a path; and

(b) receiving a transferring data request ~~for transferring data~~ from the transmitting node and transferring data at the QoS data rate to the receiving node through the resource path reserved by the QoS edge router at the transmitter, the QoS core router and the QoS edge router at the receiver,

wherein the transmitting node separates multimedia application data and general application data, and the QoS data rate is based on required data rate for guaranteeing QoS based on application type.


Claim 4 (Currently Amended)        A computer readable recording medium containing computer executable instructions to perform a method, the method comprising:~~implemented in a high capacity microprocessor included in a routing apparatus for guaranteeing Quality of Service (QoS) in the Internet, comprising the functions of:~~

(a) receiving an allocating resource request ~~for allocating resource~~ from a transmitting node and setting a path to a receiving node at a Quality Of Service (QoS) data rate by signaling of each router, a QoS edge router at a transmitter, a QoS core router and a QoS edge router at a receiver, for setting a~~the~~ path; and

(b) receiving a transferring data request ~~for transferring data~~ from the transmitting node and transferring data at the QoS data rate to the receiving node through the resource path reserved by the QoS edge router at the transmitter, the QoS core router and the QoS edge router at the receiver,

wherein the transmitting node separates multimedia application data and general application data, and the QoS data rate is based on required data rate for guaranteeing QoS based on application type, and the computer executable instructions are implemented in a high capacity microprocessor included in a routing apparatus for guaranteeing QoS in the Internet.